

## PPL13 PROJECT NOMINEE FACT SHEET

Updated: March 21, 2003

### Project Name and Number Project Name and Number

Toms Bayou/Rainey Marsh Terracing, 3-6 ~~Toms Bayou/~~

### Coast 2050 StrategyCoast 2050 Strategy

Coastwide Common Strategy - Terracing

### Project LocationProject Location

Region 3; Teche/Vermilion Basin; Vermilion Parish, Rainey Wildlife Sanctuary, Fearman Lake, and in an open water cove by Southwest Pass east of Lake Portage and Dead Man Island.

### ProblemProblem

During 1958 to 1974 interior wetland loss caused the development of shallow ponds adjacent to the McIlhenny Canal and south of Fearman Lake. Wave erosion has caused approximately 3 feet/year loss along the lake shorelines estimated by Rainey staff. Wind induced erosion also has caused the gradual expansion of Fearman Lake with the erosion of the peninsula. Shoreline wetlands of Dead Man and Tojan Island have been eroding approximately 5 to 7 feet/year based on past GIS analyses and Environmental Workgroup determinations.

The project would reduce shoreline erosion of adjacent wetlands, trap available sediments reducing turbidity and promoting accretion, and create edge habitat.

### Goals Goals

The project goal is to create emergent marsh with a high degree of edge, protect adjacent marsh from erosion, and reduce turbidity of inland waterbodies.

### Proposed SolutionProposed Solution

Approximately 87,500 feet of terracing would be constructed in up to five locations. Terraces would be constructed with a 15 ft crown 1:3 slopes in 2 ft of water. Two rows of smooth cordgrass plugs would be planted on five foot spacing along both sides of the terraces. Potentially one maintenance lift of the terraces would be needed during the project life.

### Preliminary Project BenefitsPreliminary Project Benefits

Approximately 60 acres of wetlands would be created from construction of the terraces. Approximately 43 acres of marsh would be protected by reducing shoreline erosion by 50-74%. The project would increase the colonization of submerged aquatic vegetation by reducing water turbidity.

### Compatibility with Coast 2050 CriteriaCompatibility with Coast 2050 Criteria

#### Wetland Elevation/Sustainability Wetland Elevation/Sustainability

The terraces would protect existing self, sustaining wetlands from shoreline erosions. Less than 250 acres would be sustained over the project life (approximately 103 acres).

#### Ecosystem Influence Area Ecosystem Influence Area

The project would benefit approximately 1,500 acres of lake and bay bottoms and adjacent marsh; therefore, it would be in the 1,000 to 3,000 acre range.

#### Structural Framework Structural Framework

The project is designed to help protect lake and bay rims. Less than 25% of the ecosystem influence area would be benefitted for more than 20 years based on the created acres and maintenance event.

#### Infrastructure Infrastructure

The project would have no impact on critical and/or non critical infrastructure within the ecosystem influence area as defined in the Coast 2050 criteria.

#### Organism and Material Linkages Organism and Material Linkages

The project allows a natural level of organism and material exchange consistent with the sustainability of the ecosystem.

#### Coast 2050 Habitat Objectives Coast 2050 Habitat Objectives

Marshes in the area are mapped by Chabreck '88 as brackish. The habitat objective for the majority of the ecosystem influence area is intermediate marsh. Therefore, the project would have no effect in achieving the Coast 2050 habitat objective for ecosystem influence area.

#### Project Synergy

The project would not provide synergistic effects with other restoration projects.

#### **Identification of Potential Issues**

Oysters (Southwest Pass area only) and moderate operations and maintenance.

#### **Preliminary Construction Costs Preliminary Construction Costs**

Fully funded cost range: \$5 - \$10 M

\$3.950,000 (construction + 25% contingency)

#### **Preparer of Fact SheetPreparer of Fact Sheet**

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